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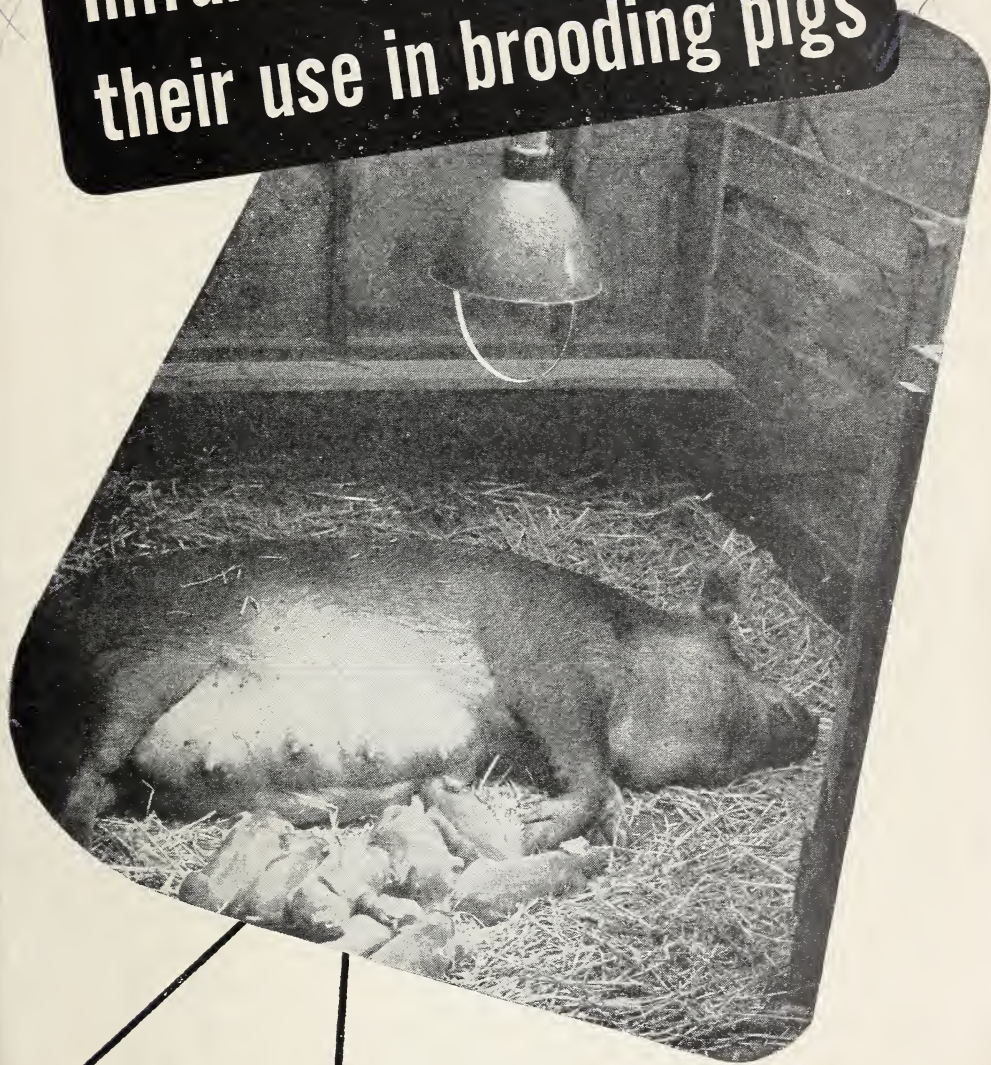
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Infrared lamps ... their use in brooding pigs



Leaflet No. 381

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Infrared Lamps . . .

Their Use in Brooding Pigs

About 3 million pigs are lost annually in the United States by chilling and crushing. Three-fourths of these losses occur within 2 days after farrowing.

Hog producers can save an average of 3 pigs in 2 litters by using infrared lamps during and after farrowing.

During farrowing, infrared lamps can provide heat for the sow and her newborn pigs. (See cover photograph.) After farrowing, they can be placed above a protected area of the pen where the young pigs can receive the benefit of the heat without danger of being crushed by the sow.

Infrared lamps have two other advantages. They permit earlier farrowing of pigs. They are inexpensive to use.

Earlier Farrowing—With infrared lamps, you can breed sows without waiting for seasons. Pigs farrowed in the early spring can be marketed in the early fall, when prices are usually high. Prices of barrows and gilts generally fall in October and November because of the flood to market of late-spring pigs.

Inexpensive—A hard glass 250-watt lamp, which you can buy for \$2.50, will use 18 kwh of electricity in 3 days, at a cost of less than 18 cents a day. During a 2-week period it would use only 84 kwh, at a cost of about \$2.50 per litter.

The saving of one pig would more

than cover the cost of using the lamp for 2 weeks.

How to use infrared lamps

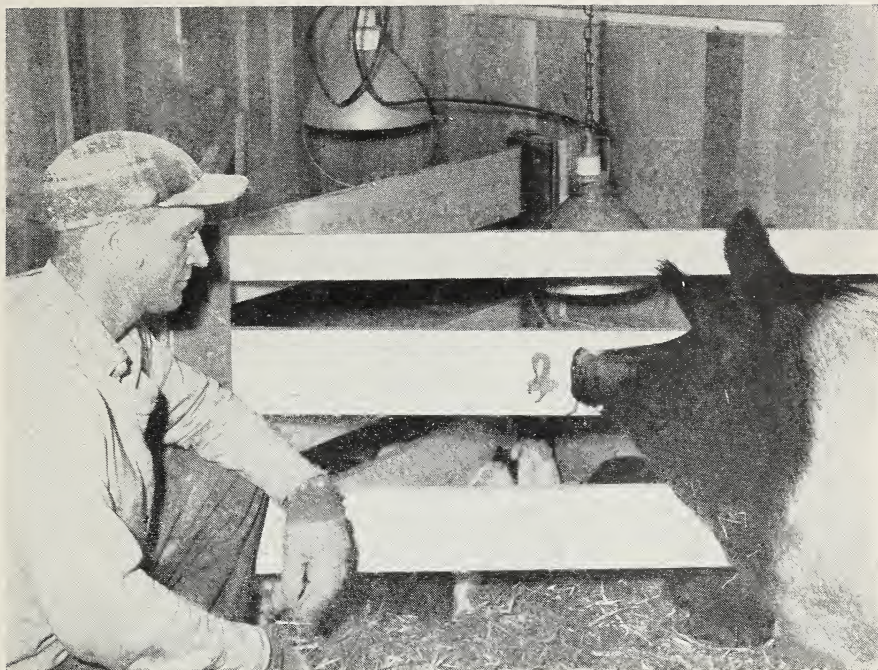
Plan on having a 250-watt lamp available (suspended not less than 6 inches above the sow) when the pen temperature drops below 45° F. If the pen temperature is below 30°, two or more lamps should be used.

1. Turn on the lamp a few hours before farrowing time to warm the sow and the bedding.
2. Turn off the lamp within 24 hours after the sow farrows and move it to a protected area of the pen, 24 inches above the floor (to the lamp face). One lamp will provide sufficient heat for a protected area.
3. Keep the lamp on the young pigs for 3 days to 2 weeks, depending on the temperature.

Materials and equipment

You can buy infrared lamps and brooding equipment from farm, feed, hardware, and mail order stores ready for use. Or you can build your own pig brooder. Whether you buy it or build it, you will find the following points helpful.

Use porcelain sockets for infrared lamps. Run a rubber jacketed asbestos



The infrared lamp placed over the pen during farrowing should be moved to a protected area within 24 hours after farrowing to provide heat for the newborn pigs.

insulated cord (Type HSJ) from each lamp socket to the outlet or junction box. Outlet boxes should be conveniently located in the center and near the protected area of the pen.

Reflectors help prevent lamp breakage due to mechanical or thermal shock (when a drop of water strikes a hot lamp). If reflectors are not available, wire guards will provide protection against breakage due to mechanical shock; pyrex or hard glass bulbs protect against breakage due to thermal shock.

Reflectors or guards should be electrically grounded by using three-wire cord with the ground wire attached to the metal shield and terminated with grounding-type connectors and outlets.

Infrared lamps may also be used with farrowing crates. One lamp placed between 2 adjacent crates and suspended 24 inches above the creep

space will provide enough heat for two litters. In severe winter weather, it may be necessary to use two lamps, one lamp for each crate. Place them over the center of the creep space.

Other types of electric radiant heaters are also suitable for pig brooding. They are long-burning and durable. But compared with infrared lamps, they usually require more electricity to provide the same amount of protection because some of their heat is wasted in warming the air above the pigs.

Other uses

When infrared lamps are not being used for pig brooding, they have many other uses around the farm and home: for brooding poultry, calves, and lambs; for thawing frozen pipes; and for "spot heating" for human comfort, such as at a workbench.



Infrared lamps can also be used successfully with farrowing crates; the lamps keep the pigs warm; the crates protect the pigs from being crushed by the sow.

Safety factors

Have a competent electrician install proper grounding-type wiring in the farrowing house. . . . Do not operate more than seven 250-watt lamps continuously on one 20-ampere, No. 12 AWG branch circuit.

Keep lamp and cord out of sow's

reach. . . . Make sure the cord is short so that the lamp cannot touch the floor without being disconnected. . . . Support lamps and reflectors or guards with a securely anchored chain. . . . Check lamps occasionally to see that they are screwed firmly in their sockets.

This leaflet was prepared by John G. Taylor, agricultural engineer, Agricultural Engineering Research Division, Agricultural Research Service.

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